Attorney's Docket No. D00532/70031

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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| Applicant: | Guolin Ma et al. |
| Serial No: | 09/543,281 |
| Confirm. No.: | 6483 |
| Filed: | April 5, 2000 |
| For: | OPTICAL RECORDING MEDIA FOR AIR-INCIDENT OPTICAL RECORDING |
| Examiner: | Ferguson, L. |
| Art Unit: | 1774 |

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Richard Gunter

Mail Stop Non-Fee Amendment
Commissioner for Patents
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**RESPONSE TO OFFICE ACTION**

Dear Sir:

In response to the Office Action dated March 12, 2003, Applicant respectfully requests reconsideration and submits the following remarks.

I. Request for an Interview

Applicant respectfully requests a telephone interview with the Examiner and his Supervisor at the earliest convenience of both, but before the issuance of a subsequent Office Action. It is believed that a telephone discussion will be helpful in resolving the outstanding issues.

II. Alleged "Product-by-Process" Language in Claims 1 and 11

In ¶3 of the Office Action, claims 1-3, 5-6, 8 and 10 are rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,168,031 ("Buckingham") in view of U.S. Patent No. 5,761,188 ("Rosen").

According to the Office Action, the "coating system of layers..." recited in claims 1 and 11 is "directed to a product by process" and hence is not accorded patentable weight. As discussed in detail below, Applicant respectfully disagrees.

Claims 1 and 11 recite "a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations." This recitation clearly does not define a process of forming the coating system of layers. In fact, nowhere in claims 1 or 11 is any process for forming "the coating system of layers," or any other aspect of the optical recording medium, recited. Hence, the "coating system of layers..." recited in claims 1 and 11 is not directed to a product-by-process. Argue

Rather, "the coating system of layers having a thermal conductivity" is described functionally to define a particular capability of the recited element. According to MPEP 2173.05(g): "There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used. A functional limitation is often used in association with an element ... to define a particular capability or purpose that is served by the recited element..." Applicant also directs the Examiner's attention to the examples listed in MPEP §2173.05(g): "The recitation 'incapable of forming a dye with said oxidizing developing agent' although functional, was perfectly acceptable because it set definite boundaries on the patent protection sought," *In re Barr*, 170 USPQ 33 (CCPA 1971); "Limitations such as 'members adapted to be positioned'... serve to precisely define present structural attributes of interrelated component parts of the claimed assembly," *In re Venezia*, 189 USPQ 149 (CCPA 1976). Respond

Given these well-settled principles of claim drafting, it is respectfully submitted that Applicant's use of functional language is proper, and must be accorded patentable weight. Like the recitation "incapable of forming a dye with said oxidizing developing agent" in *In re Barr* cited above and in MPEP §2173.05(g), the recitation "having a thermal conductivity that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations" functionally limits the element to which it pertains, and is proper use of functional language that must be given patentable weight.

As discussed in Applicant's specification, the layer structures of conventional air-incident optical recording systems may cause undesirable optical effects (page 6, lines 10-18). In particular, an elevation in temperature at the surface of a conventional air-incident optical recording disk may cause evaporation of lubricant or desorption of adsorbed contaminants on the surface of the disk (page 6, lines 21-25). The lubricant or contaminants may collect on a lens of the optical recording system and cause undesirable modification to the light beam of the system (page 6, line 29 – page 7, line 5). Accordingly, the conventional air-incident optical recording systems described in Applicant's specification do not include "a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations."

Further, the cited references do not teach or suggest such the "coating system of layers" recited in claims 1 and 11. Indeed, the Examiner does not even allege that the cited references disclose or suggest such a feature. Accordingly, claims 1 and 11 patentably distinguish over the prior art, and the rejection of claims 1 and 11 under 35 U.S.C. §103(a) should be withdrawn. Claims 2-10 and 12-20 depend from claims 1 and 11, respectively, and are allowable for at least the same reasons.

III. Comments on Examiner's Response to Arguments

a. Rejection under 35 U.S.C. §103(a) over Buckingham in view of Rosen

1. Examiner has not established a prima facie case of obviousness based on Buckingham and Rosen because he has pointed to no objective reason for combining the reference teachings.

The Examiner states that "it would have been obvious to one of ordinary skill in the art to include the low thermal conductive properties of Rosen in the dielectric and protective layers of Buckingham because Rosen teaches that giving layers high thermal conductivity for heat dissipation purposes *is known to the art* and because Buckingham already teaches the *conventionality* of a low conductivity of the optical recording medium, introducing coating layers having a low thermal conductivity for regulating heat dissipation would have been obvious, absent any evidence to the contrary." The Examiner points to no specific desirability for combining the teachings of Buckingham and Rosen. Rather, the Examiner appears to assert merely that all aspects of the claimed invention were individually known, and hence would be obvious to combine. As set forth in MPEP §2143.01, "[a] statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references."

In view of the foregoing, it is respectfully asserted that a *prima facie* case of obviousness has not been set forth with respect to the rejection over Buckingham in view of Rosen, and the rejection should be withdrawn.

2. Examiner has misinterpreted Applicant's argument that air-incident disks do not contain a substrate on the light-incident surface of the disk.

At page 7 of the Office Action, the Examiner states: "Applicant further argues, in an air-incident medium, there is no substrate on the light incident surface of the disk. This is not true because Buckingham discloses an optical recording element comprising a substrate and a

recording medium layer (column 3, lines 65-66)." Applicant believes the Examiner may have interpreted Applicant's argument as alleging that air-incident disks may not contain *any* substrate, whereas Applicant argued that air-incident recording media do not contain a substrate **between the recording layer and the light-incident surface**. This distinction between air-incident and substrate-incident disks is well-established, and is discussed both in Applicant's specification (e.g., at page 6, lines 10-12) and in Buckingham (e.g., at Col. 1, line 64, Col. 2, line 11).

Accordingly, it should be appreciated that one would not have been motivated to combine the layer 51 disclosed in Rosen with the air-incident disk of Buckingham because the purpose of the layer 51 in Buckingham is to protect the substrate 50 at the light-incident surface 49 from deformation during write/erase operations (Rosen at Col. 3, lines 50-52 and Fig. 5). The air-incident disk in Buckingham does not have a substrate at the light-incident surface of the disk. Thus, one would not have been motivated to include a layer to protect a light-incident substrate from deformation in a disk that does not include light-incident substrate.

Accordingly, since there is no motivation for the proposed combination of Buckingham and Rosen, a *prima facie* case of obviousness has not been set forth with respect to the rejection over Buckingham in view of Rosen, and the rejection should be withdrawn.

b. Rejection under 35 U.S.C. §103(a) over Rosen in View of Lee

1. Contrary to the Examiner's assertion, Applicant has argued non-obviousness based on the combination of the references."

To establish a prima facie case of obviousness, the references, when combined, must teach or suggest all of the claim limitations. In Applicant's previous response, Applicant argued, *inter alia*, that neither Rosen nor Lee teaches an air-incident optical recording medium. In particular, Applicant argued that Rosen does not teach an air-incident optical recording medium, but rather a substrate-incident recording medium, and that Lee is completely silent with respect to specific features of the optical disk and, in particular, with respect to any discussion of layers of the disk. Hence, neither Rosen nor Lee teaches the air-incident optical recording medium, as

recited in independent claims 1 and 25, or an air-incident optical disk, as recited in independent claims 11 and 21.

It logically follows that no combination of Rosen and Lee can teach an air-incident optical recording medium. Because neither Rosen nor Lee, nor any combination thereof, teaches or suggests an air-incident optical recording medium or an air-incident optical disk, a prima facie case of obviousness has not been established with respect to claims 1, 11, 21, and 25 over Rosen in view of Lee.

2. Contrary to the Examiner's assertion, it would not have been obvious to reduce the thickness of the substrate in Rosen from 600 μm to less than 1 μm."

The Examiner appears to concede that neither Rosen nor Lee discloses "an air-incident optical disk... in which a recording layer is separated from a surface of the disk by intervening layers of a total thickness less than about 1 μm," as recited in claim 21, or "an air-incident optical recording medium" comprising "a coating system less than 1 μm thick on the recording layer," as recited in claim 25. However, the Examiner argues that thickness is "an optimizable feature," and "it is obvious to optimize components in a recording medium" (Office Action at page 9). Applicant respectfully disagrees. The substrate above the recording layer in a substrate-incident disk serves a number of functions, including protection of the recording layer. The thickness of the substrate cannot be reduced by a factor of more than 600 without degrading the protective function of the substrate.

Moreover, the Examiner has not pointed to any support for the assertion that "optimizing" the thickness of the layer by reducing the thickness from 600 μm to less than 1 μm would have been obvious to one of ordinary skill in the art, and appears to rely on alleged common knowledge in the art or "well known prior art" pursuant to MPEP §2144.03. Applicant respectfully traverses the assertion that any prior art exists that would have provided motivation for such a modification. If the rejection of over Rosen in view of Lee is to be maintained, the Examiner is respectfully requested to cite a reference in support of his position as required under MPEP §2144.03 or, if the Examiner is relying upon facts within his personal knowledge, to file an affidavit establishing those facts pursuant to MPEP §2144.03.

In view of the foregoing, it should be appreciated that Rosen and Lee do not disclose or teach each of the features disclosed in claims 21 and 25. Accordingly, a prima facie case of obviousness has not been established with respect to claims 21 and 25 over Rosen in view of Lee.

IV. Rejection under 35 U.S.C. §103(a) over Buckingham in view of Rosen

In ¶3 of the Office Action, claims 1-3, 5-6, 8 and 10 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 5,168,031 ("Buckingham") in view of U.S. Patent No. 5,761,188 ("Rosen"). This rejection is respectfully traversed.

The Office Action concedes that "Buckingham does not disclose a low thermal conductivity of a dielectric layer or protective layer." However, the Office Action alleges that this feature is taught by Rosen, which discloses a dielectric layer with a low thermal conductivity that acts as a protective layer so that the high temperature experienced by the recording layer does not deform the substrate (Col. 7, lines 15-19; Col. 8, lines 23-27).

As discussed in detail below, there is no motivation to combine the teachings of Buckingham and Rosen as set forth in the Office Action. Further, the Office Action does not allege that the references teach each of the claim elements (see Section II, above). Accordingly, Applicant believes the Office Action fails to set forth a prima facie case of obviousness.

a. Summary of Buckingham

Buckingham discloses an optical recording element having a recording layer that includes a class of phthalocyanine dyes that absorb at near-infrared lengths (Col. 1, lines 5-10). The optical recording element may have an air-incident construction (AI) or a substrate-incident construction (SI), the latter being the "current trend" in the optical recording industry, according to Buckingham (Col. 1, line 64 – Col. 2, line 11).

The Examiner cites column 9, lines 25-26 and 28-29, which discloses that a dielectric spacer formed of $SiO_2$ may be disposed between the recording layer and reflecting layer of the recording element. A similar arrangement is shown as the "lower dielectric" in Figure 3 of Applicant's application. The dielectric spacer cited by the Examiner is located below the

recording layer, and not in close proximity to the light incident surface of the recording element (Col. 8, line 64 – Col. 9, line 3).

The Examiner also cites column 9, lines 51-62, which discloses a protective layer disposed on top of the recording layer to separate dust and other particles from the recording layer. The protective layer serves as the only layer above the recording layer.

b. Summary of Rosen

Rosen discloses an optical disk 12 having two substrates 50 and 56, located on opposite faces of the optical disk 12 (Col. 3, lines 49-51; Fig. 5). Light from a laser beam is directed at the disk 12 and is incident on the outer face 49 adjacent substrate 50 (Col. 3, lines 51-52; Fig. 5). In a preferred embodiment, the substrate 50 is 0.6 mm (600 μm) thick (Col. 3, lines 58-59).

The optical disk 12 of Rosen is a *substrate-incident* disk. As described in Applicant's specification, in substrate-incident optical recording, the active layer of a disk is separated from the lens by a thick plastic substrate (Page 1, line 31 – Page 2, line 3). Light is transmitted through the substrate, which is typically 0.6 to 1.2 mm (600 to 1,200 μm) thick, and one or more dielectric cladding layers before reaching the active layer of a substrate-incident optical disk (Page 6, lines 2-5; Fig. 1).

For a number of reasons, substrate-incident disks do not promote optical lens contamination, one problem addressed by the claimed invention. First, due to the thickness of the substrate, the surface of the substrate where light enters the substrate-incident optical disk is well-insulated from thermal events occurring at the active layer, where the light used to read and write the disk is focused (Specification at Page 6, lines 7-9). Further, because substrate-incident disks have a greater distance between the surface of the disk and the active layer, the "spot-size" of the light at the surface of the disk is larger in a substrate-incident disk than an air-incident disk. Hence, the optical energy density impinging on the disk surface is far less in a substrate-incident disk than in an air-incident disk, substantially reducing evaporation. Additionally, substrate-incident disk systems use a greater lens-to-disk distance than do air-incident disk systems. Since the lens-to-disk distance in substrate-incident disk systems is greater, even if

there was evaporation of contaminates from the surface of a substrate-incident disk, transport to and condensation or deposition on an associated lens does not occur.

As noted in Applicant's specification, substrate-incident disks, such as the optical disk 12 disclosed in Rosen, are admitted prior art to the claimed invention (e.g., Page 5, lines 19-20). Also, as evidenced by the above discussion, as well as the discussion in the instant application, there are structural differences between air-incident disks and substrate-incident disks making features and teachings applicable to one disk-type inapplicable to the other.

c. There is no Motivation to Combine Buckingham and Rosen

According to the Office Action, "Buckingham teaches the conventionality of air incidence and the recording layer ablated by an air-incident modulated laser beam." The Office Action further states that "[i]t would have been obvious to one of ordinary skill in the art to include the low thermal conductive properties of Rosen in the dielectric and protective layers of Buckingham because Rosen teaches that giving layers high thermal conductivity for heat dissipation purposes is known in the art."

It is respectfully asserted that combining Buckingham and Rosen in the manner suggested in the Office Action is improper, as the disclosures in these references specifically teach away from the described combination.

As noted in the Office Action, Rosen teaches a substrate-incident disk having a dielectric layer 51, which acts as a protective layer so that the high temperature that the recording layer 53 experiences during writing and erasing does not deform the substrate 50, onto which laser light is incident (Rosen at Col. 7, lines 18 and 6-19). As discussed above in section IIIa2, there is no substrate on the light-incident surface of the disk in an air-incident disk. Therefore, there would be no motivation to modify an air-incident disk, such as that disclosed in Rosen, to include a layer such as dielectric layer 51 that protects a substrate from deformation. Even if the only teaching taken from Rosen is to use an insulating dielectric over the recording layer, there is no motivation to use an insulating dielectric absent either a need to prevent deformation of a substrate, which cannot exist for an air-incident medium like Buckingham, or the motivation that can only be obtained from the instant application by improper use of hindsight. Moreover, there

is no suggestion to use the substrate of Rosen in the structure of Buckingham because doing so would render Buckingham inoperative as an air-incident medium.

As should be appreciated from the foregoing, rather than suggesting their combinability in the manner suggested in the Office Action, Buckingham and Rosen specifically teach away from such a combination. Thus, it is respectfully asserted that the rejection of claims 1-3, 5-6, 8 and 10 over a combination of Buckingham and Rosen is improper, and should be withdrawn.

d. Claim 1

Claim 1 recites an air-incident optical recording medium compatible with a flying optical head. The air-incident optical recording medium comprises a recording layer sensitive to modulation and readout by an optical beam directed through the flying optical head. The air-incident optical recording medium further comprises a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations. The coating system of layers includes a first dielectric layer disposed on the recording layer and a protective overcoat layer disposed on the first dielectric layer.

Even if one were to combine the teachings of Buckingham and Rosen, the result would be a substrate-incident disk, as disclosed in Buckingham, including the dielectric layer 51 of Rosen. However, this combination of Buckingham and Rosen does not teach or suggest an air-incident optical recording medium comprising a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations, including a first dielectric layer and a protective overcoat.

Furthermore, neither Rosen nor Buckingham discloses any system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write

operations, as each of Rosen and Buckingham is directed to a problem unrelated to the evaporation of contaminates from an optical recording disk, and therefore does not teach or suggest a related solution.

In view of the foregoing, it is respectfully asserted that claim 1 patentably distinguishes over any combination of Buckingham and Rosen, such that the rejection of claim 1 under 35 U.S.C. §103(a) as being obvious over Buckingham in view of Rosen should be withdrawn.

Claims 2-3, 5-6, 8 and 10 depend from claim 1 and are patentable over Buckingham and Rosen for at least the same reasons.

V. Rejection under 35 U.S.C. §103(a) over Rosen in view of Lee

In ¶5 of the Office Action, claims 1-5, 7, and 9-31 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 5,761,188 ("Rosen") in view of U.S. Patent No. 5,729,393 ("Lee"). This rejection is respectfully traversed.

The Office Action appears to rely on Rosen for all features in the claims related to "an air-incident optical disk" (as recited in independent claims 11 and 21) or "an air-incident optical recording medium" (as recited in independent claims 1 and 25), and on Lee for features related to "a flying optical head" (as recited in independent claim 21).

a. There is no Motivation to Combine Rosen and Lee

Initially, Applicant respectfully submits that there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine reference teachings of Rosen and Lee. Accordingly a *prima facie* case of obviousness has not been established (see MPEP § 2143).

Lee is directed to a flying head assembly, including a solid immersion lens (SIL), for use with an optical recording disk (Col. 1, lines 19-41 of Lee). Lee discloses that an SIL is positioned very close to the recording layer on a disk to achieve a high numerical aperture (Col. 1, lines 35-41). Rosen, on the other hand, is directed a substrate-incident optical disk, as discussed in section IVb. A substrate-incident disk, such as that disclosed in Rosen, is not sensitive to modulation and readout by an optical beam directed through a flying optical head.

As is well known in the art, a substrate between a flying optical head and an active layer would separate the head too far from the active layer for the system to operate correctly. Thus, one would not have been motivated to combine the teachings of Lee and Rosen because the flying head assembly of Lee is unsuitable for use with the substrate-incident disk of Rosen and therefore could not be used with the substrate-incident disk of Rosen in an optical system.

Because there is no suggestion or motivation to combine the teachings of Rosen and Lee, Applicant respectfully asserts that the Office Action has failed to establish a *prima facie* case of obviousness. Accordingly, the rejection of claims 1-5, 7, and 9-31 under 35 U.S.C. §103(a) as being obvious over Rosen in view of Lee should be withdrawn. Further, as will be discussed below, neither Rosen nor Lee, alone or in combination, discloses, teaches, or suggests all of Applicant's claimed features. For this additional reason, the Office Action fails to set forth a *prima facie* case of obviousness, and the rejection of claims 1-5, 7, and 9-31 under 35 U.S.C. §103(a) as being obvious over Rosen in view of Lee should be withdrawn.

b. Claim 1

As discussed in section IIIa, Rosen teaches a substrate-incident optical recording medium, rather than an air-incident optical recording medium as recited in claim 1. While Lee refers to the fact that an optical disk may be used with the disclosed optical flying head, Lee is completely silent with respect to specific features of the optical disk and, in particular, with respect to any discussion of layers or the thermal conductivity thereof. Therefore, no combination of Rosen and Lee teaches or suggests an air-incident optical recording medium comprising a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations, as recited in claim 1.

Further, as discussed previously, even if the sole teaching extracted from Rosen is that a thick substrate layer has insulative properties, the prior art of record would still not suggest the claimed invention. A layer of the thickness of the substrate described in Rosen would not be useable in an air-incident recording medium between the flying optical head and the active layer

because it would separate the head too far from the active layer for the system to operate correctly, as explained above. Hence, there is no teaching in Rosen of providing optical disk layers that are suitable for use in an air-incident medium, while still providing the claimed thermal properties.

In view of the foregoing, it is respectfully asserted that claim 1 patentably distinguishes over any combination of Rosen and Lee, such that the rejection of claim 1 under 35 U.S.C. §103(a) as being obvious over Rosen in view of Lee should be withdrawn.

Claims 2-5, 7, and 9-10 depend from claim 1 and are patentable over Rosen and Lee for at least the same reasons.

c. Claim 11

For the reasons set forth in section IVb, no combination of Rosen and Lee teaches or suggests an air-incident optical disk comprising a coating system of layers having a thermal conductivity that maintains the coating system of layers at a temperature that does not cause more evaporation during read and write operations of the coating system of layers and of molecules adsorbed therein from an ambient atmosphere than absent the read and write operations, as recited in claim 11.

In view of the foregoing, it is respectfully asserted that claim 11 patentably distinguishes over any combination of Rosen and Lee, such that the rejection of claim 11 under 35 U.S.C. §103(a) as being obvious over Rosen in view of Lee should be withdrawn.

Claims 12-20 depend from claim 11 and are patentable over Rosen and Lee for at least the same reasons.

d. Claim 21

As discussed in section IVb, Rosen teaches a substrate-incident optical recording medium having a substrate with a thickness of approximately 600μm, rather than an air-incident optical recording disk in which a recording layer is separated from a surface of the disk by intervening layers of a total thickness less than about 1 μm, as recited in claim 21. While Lee refers to the fact that an optical disk may be used with the disclosed optical flying head, Lee is completely

silent with respect to specific features of the optical disk and, in particular, with respect to any discussion of layers or the composition thereof. Therefore, no combination of Rosen and Lee teaches or suggests an air-incident optical disk in which a recording layer is separated from a surface of the disk by intervening layers of a total thickness less than about 1 μm and a composition such that the highest temperature of the surface during normal operation is less than the desorption temperature of water, as recited in claim 21.

In view of the foregoing, it is respectfully asserted that claim 21 patentably distinguishes over any combination of Rosen and Lee, such that the rejection of claim 21 under 35 U.S.C. §103(a) as being obvious over Rosen in view of Lee should be withdrawn.

Claims 22-24 depend from claim 21 and are patentable over Rosen and Lee for at least the same reasons.

e. Claim 25

As discussed in section IVb, Rosen teaches a substrate-incident optical recording medium having a substrate with a thickness of approximately 600μm, rather than an air-incident optical recording medium comprising a coating system less than 1 μm thick on the recording layer, as recited in claim 25. While Lee refers to the fact that an optical disk may be used with the disclosed optical flying head, Lee is completely silent with respect to specific features of the optical disk and, in particular, with respect to any discussion of layers or the thermal conductivity thereof. Therefore, no combination of Rosen and Lee teaches or suggests an air-incident optical recording medium comprising a coating system less than 1 μm thick on a recording layer, between the recording layer and a flying optical head, the coating system having at least one layer whose thermal conductivity prevents a surface temperature from occurring when the recording layer is heated by the optical beam which can cause evaporation of molecules adsorbed therein from an ambient atmosphere, as recited in claim 25.

In view of the foregoing, it is respectfully asserted that claim 25 patentably distinguishes over any combination of Rosen and Lee, such that the rejection of claim 25 under 35 U.S.C. §103(a) as being obvious over Rosen in view of Lee should be withdrawn.

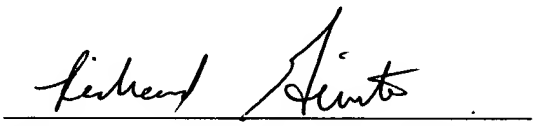
Claims 26-31 depend from claim 25 and are patentable over Rosen and Lee for at least the same reasons.

Conclusion

In view of the foregoing amendments and remarks, this application should be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to deposit account No. 23/2825.

Respectfully submitted,
***Guolin Ma et al., Applicant***

By: 

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Docket No.: D00532/70031
Date: June 12, 2003
**x06/12/03x**